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<110> Matsumoto, Hirokazu

<130> 2472USOP

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<150> PCT/JP98/02765

<151> 1998-06-22

<150> JP 9-165437

<151> 1997-06-23

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<211> 98

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<213> Bovine

<400> 1

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<211> 294

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<213> Bovine

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TGGTACGCRG GCCGTGGGAT CCGGCCCCGTG GGCCGCTTCG GCCGGCGAAG AGCTGCCCCY 180
GGGACGGAC CCAGGCCTGG CCCCCGCGT GTGCCGGCCT GCTTCCGCCT GGAAGGCGGY 240
GCTGAGCCCT CCCGAGCCCT CCGGGGCGG CTGACGGCCC AGCTGGTCCA GGAA 294
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<210> 3

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<213> Bovine

<400> 4

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 1           5           10           15
Val Gly Arg
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<211> 31

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<213> Bovine

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Pro Ala Trp Tyr Ala Gly Arg Gly Ile Arg Pro Val Gly Arg Phe Gly  
20 25 30

<210> 7

<211> 33

<212> PRT

<213> Bovine

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Arg  
33

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 Val Gly Arg Phe Gly Arg  
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 GCRGGCCGTG GGATCCGGCC CGTGGGC 87

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<211> 63

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<210> 18

<211> 66

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Phe	Leu	Ile	Gly	Asn	Leu	Ala	Leu	Ser	Asp	Val	Leu	Met	Cys	Thr	Ala
		20						25					30		
Cys	Val	Pro	Leu	Thr	Leu	Ala	Tyr	Ala	Phe	Glu	Pro	Arg	Gly	Trp	Val
		35					40					45			
Phe	Gly	Gly	Gly	Leu	Cys	His	Leu	Val	Phe	Phe	Leu	Gln	Pro	Val	Thr
	50					55					60				
Val	Tyr	Val	Ser	Val	Phe	Thr	Leu	Thr	Thr	Ile	Ala	Val	Asp	Arg	Tyr
	65				70					75					80
Val	Val	Leu	Val	His	Pro	Leu	Arg	Arg	Arg	Ile					
				85					90						

<210> 20  
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1				5					10					15	
Ser	Tyr	Val	Arg	Val	Ser	Val	Lys	Leu	Arg	Asn	Arg	Val	Val	Pro	Gly
		20						25					30		
Cys	Val	Thr	Gln	Ser	Gln	Ala	Asp	Trp	Asp	Arg	Ala	Arg	Arg	Arg	Arg
		35					40					45			
Thr	Phe	Cys	Leu	Leu	Val	Val	Val	Val	Val	Val	Val	Val	Val	Val	Val
	50						55								

<210> 21  
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Gly	Leu	Pro	Pro	Ala	Val	Thr	Thr	Pro	Ala	Asn	Gln	Ser	Ala	Glu	Ala
		20						25					30		
Ser	Ala	Gly	Asn	Gly	Ser	Val	Ala	Gly	Ala	Asp	Ala	Pro	Ala	Val	Thr
		35					40					45			
Pro	Phe	Gln	Ser	Leu	Gln	Leu	Val	His	Gln	Leu	Lys	Gly	Leu	Ile	Val
	50					55					60				
Leu	Leu	Tyr	Ser	Val	Val	Val	Val	Val	Gly	Leu	Val	Gly	Asn	Cys	Leu
	65				70				75						80
Leu	Val	Leu	Val	Ile	Ala	Arg	Val	Arg	Arg	Leu	His	Asn	Val	Thr	Asn

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<213>	Murine
<400>	22

Leu	Val	Leu	Val	Ile	Ala	Arg	Val	Arg	Arg	Leu	Tyr	Asn	Val	Thr	Asn
1				5					10					15	
Phe	Leu	Ile	Gly	Asn	Leu	Ala	Leu	Ser	Asp	Val	Leu	Met	Cys	Thr	Ala
			20					25					30		
Cys	Val	Pro	Leu	Thr	Leu	Ala	Tyr	Ala	Phe	Glu	Pro	Arg	Gly	Trp	Val
		35					40					45			
Phe	Gly	Gly	Gly	Leu	Cys	His	Leu	Val	Phe	Phe	Leu	Gln	Ala	Val	Thr
	50					55					60				
Val	Tyr	Val	Ser	Val	Phe	Thr	Leu	Thr	Thr	Ile	Ala	Val	Asp	Arg	Tyr
65					70					75					80
Val	Val	Leu	Val	His	Pro	Leu	Arg	Arg	Arg	Ile	Ser	Leu	Arg	Leu	Ser
				85					90					95	
Ala	Tyr	Ala	Val	Leu	Ala	Ile	Trp	Val	Leu	Ser	Ala	Val	Leu	Ala	Leu
			100					105					110		
Pro	Ala	Ala	Val	His	Thr	Tyr	His	Val	Glu	Leu	Lys	Pro	His	Asp	Val
		115					120					125			
Arg	Leu	Cys	Glu	Glu	Phe	Trp	Gly	Ser	Gln	Glu	Arg	Gln	Arg	Gln	Leu

130		135		140
Tyr Ala Trp Gly Leu Leu Val Thr Tyr Leu Leu Pro Leu Leu Val				
145		150		155
Ile Leu Leu Ser Tyr Ala Arg Val Ser Val Lys Leu Arg Asn Arg Val				160
		165		170
Val Pro Gly Arg Val Thr Gln Ser Gln Ala Asp Trp Asp Arg Ala Arg				175
		180		185
Arg Arg Arg Thr Phe Cys Leu Leu Val Val Val Val Val Val				190
		195		200
				205

<210> 23  
 <211> 126  
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 <400> 23

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1	5	10	15	
Ala Tyr Ala Val Leu Gly Ile Trp Ala Leu Ser Ala Val Leu Ala Leu				
	20	25	30	
Pro Ala Ala Val His Thr Tyr His Val Glu Leu Lys Pro His Asp Val				
	35	40	45	
Ser Leu Cys Glu Glu Phe Trp Gly Ser Gln Glu Arg Gln Arg Gln Ile				
	50	55	60	
Tyr Ala Trp Gly Leu Leu Gly Thr Tyr Leu Leu Pro Leu Leu Ala				
	65	70	75	80
Ile Leu Leu Ser Tyr Val Arg Val Ser Val Lys Leu Arg Asn Arg Val				
	85	90	95	
Val Pro Gly Ser Val Thr Gln Ser Gln Ala Asp Trp Asp Arg Ala Arg				
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Arg Arg Arg Thr Phe Cys Leu Leu Val Val Val Val Val Val				
	115	120	125	

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GCCTTCGAGC	CACGCGGCTG	GGTGTTCGGC	GGCGGCCTGT	GCCACCTGGT	CTTCTTCCTG	180
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GTCGTGCTGG	TGCACCCGCT	GAGGCGGCGC	ATC			273

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TGGGACCGCG CTCGGCGCCG GCGCACCTTC TGCTTGCTGG TGGTGGTCGT GGTGGTG 177

<210> 26

<211> 1110

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GGCGCGGACG CTCCAGCCGT CACGCCCCTC CAGAGCCTGC AGCTGGTGCA TCAGCTGAAG 180  
GGGTGATCG TGCTGCTCTA CAGCGTCTGT GTGGTCGTGG GGCTGGTGGG CAACTGCCCTG 240  
CTGGTGCTGG TGATCGCGCG GGTGCGCCGG CTGCACAACG TGACGAACTT CCTCATCGGC 300  
AACCTGGCCT TGTCCGACGT GCTCATGTGC ACCGCTGCG TGCCGCTCAC GCTGGCCTAT 360  
GCCTTCGAGC CACGCGGCTG GGTGTTCCGG GCGGCTGTG GCCACCTGGT CTTCTTCCTG 420  
CAGCCGGTCA CCGTCTATGT GTCGGTGTTC ACGCTACCA CCATCGCAGT GGACCGCTAC 480  
GTCGTGCTGG TGCACCCGCT GAGGCGGCGC ATCTCGCTGC GCCTCAGCGC CTACGCTGTG 540  
CTGGCCATCT GGGCGCTGTC CGCGGTGCTG GCGCTGCCCG CCGCCGTGCA CACCTATCAC 600  
GTGGAGCTCA AGCCGCACGA CGTGCGCCTC TGCGAGGAGT TCTGGGGCTC CCAGGAGCGC 660  
CAGCGCCAGC TCTACGCCTG GGGGCTGCTG CTGGTCACCT ACCTGCTCCC TCTGCTGGTC 720  
ATCCTCCTGT CTTACGTCCG GGTGTCACTG AAGCTCCGCA ACCGCGTGGT GCCGGGCTGC 780  
GTGACCCAGA GCCAGGCCGA CTGGGACCGC GCTCGGCGCC GGCGCACCTT CTGCTTGCTG 840  
GTGGTGGTGG TGGTGGTGGT CGCCGTCTGC TGGCTGCCCG TGCACGTCTT CAACCTGCTG 900  
CGGGACCTCG ACCCCACGCG CATCGACCCT TACGCCCTTG GGCTGGTGCA GCTGCTCTGC 960  
CACTGGCTCG CCATGAGTTC GGCCTGCTAC AACCCTTCA TCTACGCCTG GCTGCACGAC 1020  
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<213> Murine

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GCCTTCGAGC CACGCGGCTG GGTGTTCCGG GCGGCTGTG GCCACCTGGT CTTCTTCCTG 180  
CAGGCGGTCA CCGTCTATGT GTCGGTGTTC ACGCTACCA CCATCGCAGT GGACCGCTAC 240  
GTCGTGCTGG TGCACCCGCT GAGGCGGCGC ATCTCGCTGC GCCTCAGCGC CTACGCTGTG 300  
CTGGCCATCT GGGTGTGCTG CGCGGTGCTG GCGCTGCCCG CCGCCGTGCA CACCTATCAC 360  
GTGGAGCTCA AGCCGCACGA CGTGCGCCTC TGCGAGGAGT TCTGGGGCTC CCAGGAGCGC 420  
CAGCGCCAGC TCTACGCCTG GGGGCTGCTG CTGGTCACCT ACCTGCTCCC TCTGCTGGTC 480  
ATCCTCCTGT CTTACGCCCC GGTGTCACTG AAGTCCGCA ACCGCGTGGT GCCGGGCGC 540  
GTGACCCAGA GCCAGGCCGA CTGGGACCGC GCTCGGCGCC GGCGCACCTT CTGCTTGCTG 600  
GTGGTGGTGG TGGTGGTG 618

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<212> DNA

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GTGGAGCTCA AGCCCCACGA CGTGAGCCTC TGCGAGGAGT TCTGGGGCTC GCAGGAGCGC 180
CAACGCCAGA TCTACGCCTG GGGGCTGCTT CTGGGCACCT ATTTGCTCCC CCTGCTGGCC 240
ATCCTCCTGT CTTACGTACG GGTGTCAGTG AAGCTGAGGA ACCGCGTGGT GCCTGGCAGC 300
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TGGGTGGTGG TGGTAGTG 378
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<213> Unknown

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<212> DNA

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<210> 31

<211> 27

<212> DNA

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CTGTGYGISA TYGCNNTKGA YMGSTAC 27

<210> 32

<211> 29

<212> DNA

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<210> 33

<211> 24

<212> DNA

<213> Unknown

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CTGACTTATT TTCTGGGCTG CCGC 24

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<211> 24

<212> DNA

<213> Unknown

<220>

<223> Unsure

<400> 34

AACACCGACA CATAGACGGT GACC 24

<210> 35

<211> 20

<212> DNA

<213> Unknown

<220>

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*(The following are the names of the authors of the papers presented at the conference, listed in alphabetical order by last name.)*

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*(The following are the names of the authors of the papers in the volume, listed in alphabetical order.)*

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*(The following are the names of the authors of the papers presented at the conference, listed in alphabetical order by last name.)*

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 <212> DNA  
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Ala	Leu	Gln	Gly	Ala	Ala	Ser	Arg	Ala	His	Gln	His	Ser	Met	Glu	Ile
		20						25					30		
Arg	Thr	Pro	Asp	Ile	Asn	Pro	Ala	Trp	Tyr	Ala	Gly	Arg	Gly	Ile	Arg
		35					40					45			
Pro	Val	Gly	Arg	Phe	Gly	Arg	Arg	Ala	Ala	Leu	Gly	Asp	Gly	Pro	
		50				55				60					
Arg	Pro	Gly	Pro	Arg	Arg	Val	Pro	Ala	Cys	Phe	Arg	Leu	Glu	Gly	Gly
		65			70					75				80	
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				85				90						95	
Gln	Glu														

<210> 45  
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 <212> PRT  
 <213> Rat  
 <400> 45

Met	Ala	Leu	Lys	Thr	Trp	Leu	Leu	Cys	Leu	Leu	Leu	Leu	Ser	Leu	Val
1				5				10					15		
Leu	Pro	Gly	Ala	Ser	Ser	Arg	Ala	His	Gln	His	Ser	Met	Glu	Thr	Arg
		20						25					30		
Thr	Pro	Asp	Ile	Asn	Pro	Ala	Trp	Tyr	Thr	Gly	Arg	Gly	Ile	Arg	Pro
		35				40					45				
Val	Gly	Arg	Phe	Gly	Arg	Arg	Arg	Ala	Thr	Pro	Arg	Asp	Val	Thr	Gly
		50				55				60					
Leu	Gly	Gln	Leu	Ser	Cys	Leu	Pro	Leu	Asp	Gly	Arg	Thr	Lys	Phe	Ser
		65			70				75					80	
Gln	Arg	Gly													

<210> 46  
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 <213> Rat  
 <400> 46

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 TACACGGGCC GCGGGATCAG GCCTGTGGGC CGCTTCGGCA GGAGAAGGGC AACCCCGAGG 180  
 GATGTCAC TG GACTTGGCCA ACTCAGCTGC CTCCCACTGG ATGGACGCAC CAAGTTCTCT 240  
 CAGCGTGGA 249

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 Pro Ala Trp Tyr Thr Gly Arg Gly Ile Arg Pro Val Gly Arg Phe  
 20 25 30

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 <211> 32  
 <212> PRT  
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 1 5 10 15  
 Pro Ala Trp Tyr Thr Gly Arg Gly Ile Arg Pro Val Gly Arg Phe Gly  
 20 25 30

<210> 49  
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Ser Arg Ala His Gln His Ser Met Glu Thr Arg Thr Pro Asp Ile Asn  
 1 5 10 15  
 Pro Ala Trp Tyr Thr Gly Arg Gly Ile Arg Pro Val Gly Arg Phe Gly

Arg 20 25 30

<210> 50  
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 1 5 10 15  
 Val Gly Arg Phe  
 20

<210> 51  
 <211> 21  
 <212> PRT  
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Thr Pro Asp Ile Asn Pro Ala Trp Tyr Thr Gly Arg Gly Ile Arg Pro  
 1 5 10 15  
 Val Gly Arg Phe Gly  
 20

<210> 52  
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Thr Pro Asp Ile Asn Pro Ala Trp Tyr Thr Gly Arg Gly Ile Arg Pro  
 1 5 10 15  
 Val Gly Arg Phe Gly Arg  
 20

<210> 53  
 <211> 93  
 <212> DNA  
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ACGGGCCGCG GGATCAGGCC TGTGGGCCGC TTC

93

<210> 54

<211> 96

<212> DNA

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<400> 54

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<212> DNA

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<210> 57

<211> 63

<212> DNA

<213> Rat

<400> 57

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GGC 63

<210> 58

<211> 66

<212> DNA

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<400> 58

ACCCCTGATA TCAATCCTGC CTGGTACACG GGCCGCGGGA TCAGGCCTGT GGGCCGCTTC 60  
GGCAGG 66

<210> 59

<211> 87

<212> PRT

<213> Human

<400> 59

Met Lys Val Leu Arg Ala Trp Leu Leu Cys Leu Leu Met Leu Gly Leu  
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20 25 30  
Arg Thr Pro Asp Ile Asn Pro Ala Trp Tyr Ala Ser Arg Gly Ile Arg  
35 40 45  
Pro Val Gly Arg Phe Gly Arg Arg Arg Ala Thr Leu Gly Asp Val Pro  
50 55 60  
Lys Pro Gly Leu Arg Pro Arg Leu Thr Cys Phe Pro Leu Glu Gly Gly  
65 70 75 80  
Ala Met Ser Ser Gln Asp Gly  
85

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<211> 261

<212> DNA

<213> Human

<400> 60

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TGGTACGCCA GTCGCGGGAT CAGGCCTGTG GGCCGCTTCG GTCGGAGGAG GGCAACCCTG 180  
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<210> 61

<211> 31

<212> PRT

<213> Human

<400> 61

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20

25

30

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 Pro Ala Trp Tyr Ala Ser Arg Gly Ile Arg Pro Val Gly Arg Phe Gly  
 20 25 30  
 Arg

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15

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Val Gly Arg Phe Gly Arg  
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<210> 72

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Xaa of the 11th position is Gly or Ser.  
Xaa of the 21st position is H, Gly or GlyArg.

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Thr Pro Asp Ile Asn Pro Ala Trp Tyr Xaa Xaa Arg Gly Ile Arg Pro  
1 5 10 15  
Val Gly Arg Phe Xaa  
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 <213> Unknown  
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<223> Unsure. Xaa of the 3rd position is Ala or Thr.  
 Xaa of the 5th position is Gln or Arg.  
 Xaa of the 10th position is Ile or Thr.

<400> 74

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TACCAGGCAG GATTGATACA GGGG 24

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GGCATCATCC AGGAAGACGG AGCAT 25

<210> 78

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<210> 79

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<210> 80

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GGCAGCTGAG TTGGCCAAGT CCACT 25

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<210> 94

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Cys Glu Ile Arg Thr Pro Asp Ile Asn Pro Ala Trp Tyr Ala Gly  
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